

Claims

1. An ink-jet transfer system, characterized in that it comprises or consists of

a) a carrier material,

5 b) an adhesive layer being applied onto said carrier material which comprises dispersed spherical polyester particles of a granular size of less than 30 μm ,

c) a white background layer being applied
10 onto the hot-melt layer consisting of at temperatures up to 220°C non-fusible elastic plastics which are filled with white inorganic pigments and,

d) at least one ink-receiving layer.

2. The ink-jet transfer system according to
15 claim 1, characterized in that the molecules of the ink-receiving layer and/or of the binder contained therein are capable of forming chemical, particularly covalent bonds to the dyestuff molecules of the ink.

3. The ink-jet transfer system according to
20 claim 1 or 2, characterized in that the ink-receiving layer disposes of reactive groups which are capable of forming essentially covalent bonds to the dyestuff molecules, particularly to azo-dyestuff molecules or acid-dyestuff molecules of the ink.

25 4. The ink-jet transfer system according to claim 3, characterized in that the reactive groups are amino groups.

5. The ink-jet transfer system according to one of the claims 1 to 4, characterized in that the ink-
30 receiving layer contains or consists of a highly porous polyamide pigment with a surface of at least about 15 m^2/g , preferably of about 20-30 m^2/g and a mean granular size of approximately about 2 to 25 μm , preferably about 2-10 μm , as well as a soluble polyamide as binder and
35 that the hot-melt contains or consists of a polyester.

6. The ink-jet transfer system according to claim 5, characterized in that the highly porous polyam-

ide pigment is obtained by means of an anionic poly-addition and subsequent controlled precipitation whereby the granular sizes are adjusted by ceasing the precipitation.

5 7. The ink-jet transfer system according to one of the claims 1 to 6, characterized in that the ratio between the porous pigment and the binder is between about 5:1 and 1:1, preferably 3:1 and 2:1 and particularly preferred 2.4:1.

10 8. The ink-jet transfer system according to one of the claims 1 to 7, characterized in that the elastic plastics of the white background layer are selected from the group comprising polyurethanes, polyacrylates, polyalkylenes, particularly preferred polyurethanes.

15 9. The ink-jet transfer system according to one of the claims 1 to 8, characterized in that the pigments in the white background layer are selected from the group comprising BaSO_4 , ZnS , TiO_2 , ZnO , SbO .

20 10. The ink-jet transfer system according to one of the claims 1 to 9, characterized in that the adhesive layer is a hot-melt layer.

25 11. The ink-jet transfer system according to claim 10, characterized in that the hot-melt layer contains or consists of a mixture a blend of an ethylene acrylic acid copolymer and polyester particles of a granular size of less than or equal to 20 μm .

30 12. The ink-jet transfer system according to one of the claims 1 to 11, characterized in that the carrier layer consists of a heat-resistant separating paper, preferably silicon paper.

35 13. The ink-jet transfer system according to one of the claims 1 to 12, characterized in that it furthermore contains a dispersing additive for organic pigments.

14. Method for the preparation of an ink-jet transfer system according to one of the claims 1 to 13, comprising the following steps:

a) application of an adhesive layer comprising dispersed spherical polyester particles of a granular size of less than 30 μm onto a carrier material whereby a layer thickness of about 30 to 40 μm is adjusted,

5 b) application of a white background layer consisting of at temperatures up to 220°C non-fusible elastic plastics which are filled with white inorganic pigments onto the hot-melt layer,

10 c) application of at least one ink-receiving layer onto said white background layer so that a total thickness of the ink-receiving layer of about 20 to 35 μm is achieved and,

 d) letting evaporate the solvent during coating.

15 15. Method according to claim 14, characterized in that two ink-receiving layers are applied.

 16. Method for printing textile substrates, characterized in that a graphic presentation is printed laterally correct by a computer via a printer on the ink-
20 jet transfer system according to one of the claims 1 to 13 and thereafter is hot iron pressed onto the textile substrate and that the carrier material is coldly removed after cooling down.